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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO.       |
|---|-------------|----------------------|--------------------------|------------------------|
| 10/826,002  | 04/16/2004  | Katsuro Tsukamoto    | KIYO-44(KUP-04-20)       | 9225                   |
| 7590<br>Curt Harrington<br>Suite 250<br>6300 State University Drive<br>Long Beach, CA 98015 |             |                      | EXAMINER<br>DUONG, THO V |                        |
|   |             |                      | ART UNIT<br>3744         | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>11/27/2007  | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/826,002

Applicant(s)

TSUKAMOTO, KATSURO

Examiner

Tho v. Duong

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30, 32-36, 38-42, 44-48, 50-58 and 60 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 13, 25, 55-56, 58 and 60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2-6,8-12,14-24,26-30,32-36,38-42,44-48,50-54 and 57.

### **DETAILED ACTION**

Applicant's amendment filed 9/7/07 is acknowledged. Claims 1-30,32-36, 38-42,44-48, 50-58 and 60 are pending. Claims 2-6,8-12,14-24,26-30,32-36,38-42,44-48,50-54 and 57 are withdrawn from further consideration.

#### ***Response to Arguments***

Applicant's arguments filed 9/7/07 have been fully considered but they are not persuasive. Applicant's argument that the prior arts fails to disclose the intended use of a heat release sheet such as for electronic equipment, has been very carefully considered but is not found to be persuasive. In response to applicant's argument that the heat releasing sheet is used for electronic equipment, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitation. Ex parte Mashame, 2 USPQ 2d 1647 (1987). Furthermore, reference to Inoue further discloses that the heat releasing sheet can be used in many applications such as exothermic body, battery electrode, heat resistant seal, and heat sinks of electrical parts. (column 1, line 13-19, and column 5, line 47-53). Reference to Kashima and Inoue are in the same field of endeavor and/or analogous art of a heat resistance sheet. Therefore, it is obvious to one having ordinary skill in the art to employ Kashima's teaching of wire reinforcing structure of a heat resistance graphite sheet in Inoue's heat resistance graphite sheet for a purpose of providing an alternative reinforcing structure for the expanding graphite sheet.

Applicant's argument that neither Inoue nor Kashima disclose any technical feature relating to washing of the graphite sheet and/or the reticulate body with reduction water with

negative oxidation-reduction potential, has been very carefully considered but is not found to be persuasive. As admitted by the applicant that the graphite or metal itself is not electrifiable (page 14 in the Remark), the graphite material and metal wire of Inoue in view of Kashima are inherently not electrifiable. Regarding the methods of forming “due to elimination of minute refuse by washing said combination with reduction water with negative oxidation- reduction potential” are not germane to the issue of the device itself. “Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this instant case, the product in the product by process claim is the same as or obvious from the combination product of Inoue and Kashima, the claims are unpatentable even though the prior product was made by a different process such as blowing air, wipe off...etc.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,7,13,25,55,56,58,60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,027,807) in view of Kashima et al. (US 6,152,453). Inoue

discloses (figures 4, 8 and column 7, line 66- column 8, line 13) a heat release sheet comprises of an expansive graphite sheet (11) and a reticulated body, wherein the reticulated body is a metal grid overlapping on both sides of the expansive graphite sheet (11); the reticulated body is used as an anchor surface for a resin layer and a synthetic resin film attached on. Inoue et al further discloses that the heat release sheet can be used as a heat sink. Inoue does not disclose that the reticulated body comprises of metal wire. Kashima discloses (figures 2,5, 8,9 and 13) a heat release sheet comprises of an expansive graphite sheet (3) and a reticulated body overlapping both side of the graphite sheet, wherein the reticulated comprises of metal wires for a purpose of providing an alternative reinforcing structure for the expanded graphite sheet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Kashima's teaching in Inoue's device for a purpose of providing an alternative reinforcing structure for the expanded graphite sheet. Regarding claims 7 and 43, the methods of forming "metal rolling processing" and "due to elimination of minute refuse by washing said combination with reduction water with negative oxidation- reduction potential" are not germane to the issue of the device itself. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this instant case, the product in the product by process claim is the same as or obvious from the combination product of Inoue and Kashima, the claims are

unpatentable even though the prior product was made by a different process such as blowing air, wide off...etc.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

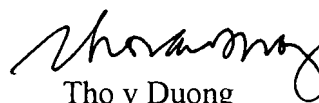
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tho v Duong  
Primary Examiner  
Art Unit 3744



TD  
November 21, 2007